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ABSTRACT

Attitudes, as measured by the College Student Questionnaire (CSQ), of the members of a college freshman class grouped according to high school backgrounds were studied. Various high school backgrounds, private and public were included. It was hypothesized that: (1) members of the four intraclass groups would have different attitude patterns as a result of their different high school backgrounds; (2) subgroup members who graduated from an all male boarding high school (Group One), because of a high degree of group identity, would change little, if at all, in their attitude patterns, and (3) members of the other subgroups would be different from the members of the Group One but would be influenced by them so that by the end of the study period at least some of the initial differences would have disappeared by the end of the study. None of the hypotheses were borne out by the data. The only significant t value obtained as a comparison between Group One's pre- and post-test mean score on the Liberalism Scale of the SCQ, wherein the members of this group scored significantly higher after two years of college. Further research is indicated. (Author/KJ)

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THE RELATION OF HIGH SCHOOL BACKGROUNDS TO ATTITUDE PATTERNS AND TO PATTERNS OF ATTITUDE CHANGE DURING THE FIRST TWO COLLEGE YEARS

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An attempt was made to determine whether the members of a small, all-male group of college freshmen, hereafter referred to as Group One, had significantly different sets of attitudes as a result of their boarding school background. Secondly, the kind and degree of attitude changes experienced by the members of Group One in relation to that groups social cohesiveness was investigated. Finally, an attempt was made to determine whether the members of Group One, socially cohesive and prominent in campus affairs and leadership roles, effected attitude changes among other intraclass groups.

On the basis of data gathered and reviewed in connection with other local research projects, but never thoroughly or statistically analyzed, it seemed reasonable to hypothesize that sub-groups of entering college freshmen coming from differing high school backgrounds would have differing attitudinal patterns. The findings of R. Neuwien (1966), Greeley and Rossi (1966), and Hartnett and Centra (1968) while not conclusive, did suggest that attitudinal differences do exist among Catholics with varying patterns of Catholic and non-Catholic educational backgrounds. Hartnett and Centra found significant differences among groups of college freshmen who had Catholic and non-Catholic secondary school backgrounds on the Family Independence and Social Conscience scales of the College Students Questionnaire (hereafter referred to as the CSQ).

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During the past decade considerable interest has been generated among sociologists, psychologists, and educators in the study of attitudes and values. Researchers have by various means attempted to determine which, if any, attitudes and values are developed or modified as a result of the college experience.

Contradictory evidence has been presented regarding the impact of college on student attitudes and values (Jacobs, 1958; Newcomb, 1943; Webster, 1958; Sanford, 1956; Lehmann, Sinka, and Hartnett, 1966; Brown, 1966; Astin, 1968). However, data does seem to indicate that certain changes can occur.

Under certain conditions there have been demonstrations that changes in attitudes of a consensual nature, do occur during college years (Webster, 1968; Lehmann, 1963; Brown, 1966). One factor or condition which appears to influence such change is intra-group approval of new attitudes (Rosenberg, 1956; Flachs, 1963; Brown, 1966). Sherif (1948) stated, "Attitude changes are primarily a function of group references." Newcomb (1962) in The American College wrote, "A small clique whose members are bonded together, perhaps, by dissident values or beliefs may be an influence group par excellence." In the same volume he stated:

> Neither this study (Coleman and Rossi, 1960) nor any other known to me, however, provides much information as to the subsequent fate of pre-college friendships. It seems probable that many or most of them are superceded by others developed in college with previously unknown persons. In the presumable rare cases where they do persist through a significant portion of the college years, it seems more likely that they mediate new ones acquired through college experience.

The conditions of this research situation approximated most closely the latter of the theoretical possibilities posed by Newcomb. Group One was a group of high school friends who had remained rather closely tied

together during their first two college years. Were they, or were they not, an influence group "par excellence"?

Basic hypotheses of this study stated in the null form are:

1. That as entering college freshmen, the attitudes held by the members of Group One were not significantly different from the attitudes held by the members of other study groups.

2. No significant differences exist between the attitudes of the members of Group One as measured by the seven CSQ scales at the time of college enrollment and their attitudes as measured by the same instrument just prior to the conclusion of the college sophomore year.

3. The attitudes held by the members of Group One will have no significant effect on the attitudes held by members of three other intraclass subgroups determined on the basis of high school background.

PROCEDURE

Part I of the CSQ was administered to all entering college freshmen in the fall of 1967. A companion Part II of the CSQ was administered to the remaining members, minus dropouts, of the same group of students in April of 1969, just prior to the completion of their second college year.

Section four of both Parts I and II of the CSQ is composed of identical items which yield data regarding attitudes on a pretest-posttest basis. This section was designed so as to yield five comparable scale scores: Family Independence (FI), Peer Independence (PI), Liberalism (L), Social Conscience (SC), and Cultural Sophistication (CS). For a detailed description of the attitudes and values measured by each of these scales, readers are referred to the Technical Manual for the CSQ (1968).

Group One numbered 22 at the beginning of their college freshmen year. All had graduated, after at least two years of attendance, from a

small, private, all-male high school. This same freshmen class included 18 graduates of community Lutheran high schools and 69 public high school graduates.

Using the pre-posttest technique the scale scores of Group One members were compared to those of three other intraclass groups that composed the general freshmen college population. These groups were:

> Group Two, male graduates of public high schools;
> Group Three, male graduates of community Lutheran high schools;
> and Group Four, female graduates of public high schools.

Evidence indicated that the members of Group One dominated the entire freshmen college class group in terms of power structure, etc. For example, members of that group were elected to the presidency and vice-presidency of the freshmen college class and members of Group One held all of the elected student government positions open to college freshmen men. In addition, members of the group in question held a majority of club and activity group offices. This same situation existed during the college sophomore year for that class.

There is also socio-metric data to indicate that Group One maintained its identity. Given free choice of roommates and location of rooms, all but two members of the group chose members of their group as roommates during the freshmen year. Also, they chose locations so that the group members were in close proximity to each other, although separated into two sub-groups. A similar situation prevailed during the sophomore year. With only two exceptions, Group One members once again chose as roommates members of their own group. Also, observation indicated that the exceptions represent cases where members of other class sub-groups had been accepted by the group and were hence chosen as roommates.

Only the scale scores of those students still in college in April of 1969 were included in the study to eliminate the variable which might be introduced by including drop-outs in the pretest group. This resulted in small sizes of 14 for Group One, 14 for Group Two, 7 for Group Three, and 33 for Group Four.

The scale scores in the CSQ are of the Likert Type. These are ordinal measures only, but the existence of group differences on each of the scale scores can be identified using t tests. In order to test the first hypothesis t tests for independent samples were made between the mean scores on each of the seven scales for the control group and comparable scores for each of the three experimental groups. To test the second hypothesis t tests for dependent groups were made comparing the pre- and posttest scores of the members of Group One on each of the seven scales.

The final hypothesis or group of hypotheses was to be tested only if the first hypothesis could be rejected; that is, if significant differences did exist between the members of Group One and the other groups on at least one of the scales upon college enrollment. Since statistically significant initial differences were not present the testing of this hypothesis had to be abandoned.

RESULTS AND DISCUSSION

The pre- and posttest means and standard deviations on the seven CSQ scales (FI, PI, L, SC, and CS) are cited in Table 1. A perusal of

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Insert Table 1 about here

Table 1 indicates that with few exceptions all groups had higher mean scores on the posttest than on the pretest. However, Group One was the

most consistent of all groups in having higher mean scores on the posttest.

Table 2 reports the t values obtained when Group One's pre- and posttest means were compared. The only significant t value obtained

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Insert Table 2 about here

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resulted from a comparison of this group's pre- and posttest scores on the L scale of the CSQ.

Table 3 reports t values obtained when Group One's pretest mean scores on the CSQ scales were compared with the mean scores of the other three groups with varying high school backgrounds. It is to be noted

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Insert Table 3 about here

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that some of these t values approached the level required for significance, but that none reached it.

An auxiliary publication[1] includes two tables indicating frequency data regarding members of Ss of each group who scored above and below their pretest score on the posttest and non-parametric test results comparing said frequencies. When subjected to statistical analysis using the Wilcoxon Sign Tests and Mann-Whitney U-Test, no meaningful statistically significant differences were obtained except the one previously described.

Generally, the results do not tend to support the findings of Hartnett and Centra (1968), who found significant differences on the FI and SC scales depending upon secondary school background. The specific

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[1]Three tables giving frequency counts of students scoring above and below pretest results on posttest, Wilcoxon Sign Test, and Mann-Whitney U-test values are available from the author. Mailing Address: % St. Paul's College, Concordia, Missouri, 64020.

kind of high school background had little or no generalized effect on those basic attitude patterns as measured by CSQ. Although members of Group One generally had higher pre- and posttest scores on the various scales, with the exception of the SC scale, none of the differences were statistically significant. As is the case within the college environment, the effect of secondary education on attitude formation and change is open to question yet, and much more research must be done to determine the true state of affairs.

Although only one significant difference existed among the pre- and posttest scores among the members of Group One, the results would seemingly confirm Newcomb's (1962) presumption that in cases where precollege friendships persisted through a significant portion of the college years "they would mediate new ones (attitude patterns) acquired through college experiences." The general trend of the mean scores of Group One, plus the fact that it was only among the members of this group that any statistically significant differences were obtained, would tend to indicate this. It seems that within such socio-politically based sub-groups existing attitudes and trends of change, if any are or were present, tend to be reinforced.

Several weaknesses are apparent in the design which may have significantly affected the results. First, although researchers (Astin, 1968, and others) recommend that much of the future research in this area of investigation; that is, the influence which the college experience may have on attitude formation and change, be done on relatively small scales involving smaller groups, this study suffers from sample sizes that are too small. These small group sizes placed tremendous demands on the data in order to produce significant differences.

Secondly, the design would have been strengthened had the investigator made directional hypotheses when comparing Group One with the other study groups. This would have permitted the use of one-tailed, rather than two-tailed, t tests.

Lastly, a measuring instrument capable of more precise measurement and one which attempts to evaluate other, possibly more pertinent, attitude patterns and changes might improve the design. Particularly, attitudes toward authority, toward members of the opposite sex, and toward school and societal norms should be studies on an intra- and intergroup basis.

Further research into intergroup behaviours and influences within the campus environment seems imperative in view of current campus conditions. This and other research attempts do indicate that attitude formation and change can possibly be accomplished by working through and with existing and possibly formed groups of various kinds. Although not indicated by the study, it seems most likely to this investigator that these groups must be kept reasonably small so that much intragroup interchange and reinforcement can occur.

SUMMARY AND CONCLUSIONS

Attitudes, as measured by the College Student Questionnaire (CSQ), of the members of a college freshmen class grouped according to high school backgrounds were studied. The varying high school backgrounds represented included public high school backgrounds; private, but community centered, religious, coeducational high school; and a private, religious, all-male high school, which was a boarding school.

It was hypothesized that members of the four intraclass groups would have different attitude patterns as a result of their different

high school backgrounds, that the subgroup members who graduate from the all-male boarding high school (Group One), because of a high degree of group identity, would change little, if at all, in their attitude patterns, and that the members of the other subgroups would initially be different from the members of the Group One, but would be influenced by the members of Group One so that by the end of the study period at least some of the initial differences would have disappeared.

None of the hypotheses were borne out by the data. The only significant *t* value obtained was a comparison between Group One's pre- and posttest mean score on the Liberalism Scale of the CSQ, wherein the members of this group scored significantly higher after two years of college.

The study points to the need for further research regarding the influence of varying secondary school backgrounds on attitude patterns and the influence of intra and intergroup forces on attitude formation and change at all levels.

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Table 1

Group Pre- and Posttest Means and Standard Deviations
For Each Scale on the College Student Questionnaire

Group	Test	College Student Questionnaire Scales									
		Fam. Ind.		Peer Ind.		Liberalism		Soc. Consc.		Cul. Soph.	
		Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
One	Pre-	21.33	4.03	22.33	2.80	22.68	4.04	26.32	3.50	24.43	4.59
	Post-	23.43	4.43	23.59	2.87	25.86	3.56	28.29	3.09	24.64	3.59
Two	Pre-	18.64	3.95	24.47	3.72	20.36	3.86	29.52	4.29	22.57	3.65
	Post-	20.50	2.82	25.29	3.60	22.57	3.20	28.57	3.30	23.43	3.50
Three	Pre-	21.37	3.24	20.25	2.64	21.78	2.74	26.62	4.24	22.00	3.42
	Post-	20.86	2.48	21.57	1.62	22.29	3.35	29.29	3.09	24.14	3.24
Four	Pre-	17.48	3.81	22.09	6.68	23.79	3.91	29.77	4.47	22.33	4.92
	Post-	19.21	3.81	22.01	4.65	24.06	3.81	29.89	3.95	22.48	3.52

Table 2

t Values Derived When Group One Pretest and Posttest Means Were Compared

College Student Questionnaire Scales				
Fam. Ind.	Peer Ind.	Liberalism	Soc. Consc.	Cul. Soph.
1.32	1.12	4.83*	1.80	0.17

* $p < .05$

Table 3

t Values Obtained When Group One Pretest Means Were Compared With the Pretest Means of the Other Three Study Groups

Group One vs.	College Student Questionnaire Scales				
	Fam. Ind.	Peer Ind.	Liberalism	Soc. Cons.	Cul. Soph.
Group Two	1.26	1.37	1.10	1.53	1.04
Group Three	0.07	0.95	0.18	0.04	0.42
Group Four	0.04	1.13	0.03	0.16	0.06

Table A

Frequency of Gains and Losses on Posttest
Over Pretest Scores

Scale	Group	Lower Scores					No Change	Higher Scores					Total	
		9+	7,8	5,6	3,4	1,2		1,2	3,4	5,6	7,8	9+	Lower	Higher
Family Independence	Group 1	-	-	1	1	2	1	5	3	-	-	1	4	9
	Group 2	-	-	1	2	1	-	2	4	4	-	-	4	10
	Group 3	-	-	-	2	3	1	-	1	-	-	-	5	1
	Group 4	-	-	1	2	5	4	7	7	3	3	1	8	21
	Total	0	0	3	7	11	6	14	15	7	3	2	21	41
Peer Independence	Group 1	-	-	-	1	3	4	4	1	-	-	1	4	6
	Group 2	-	-	1	1	3	1	3	2	3	-	-	5	8
	Group 3	-	-	-	1	1	0	3	2	-	-	-	2	5
	Group 4	-	2	1	4	7	5	7	2	4	-	-	14	13
	Total	0	2	2	7	14	10	17	7	7	0	1	25	32
Liberalism	Group 1	-	-	-	-	-	1	6	2	4	1	-	0	13
	Group 2	-	1	-	2	-	-	5	2	2	2	-	3	11
	Group 3	-	-	1	1	1	-	1	-	2	1	-	3	4
	Group 4	-	2	3	4	1	10	6	2	3	1	1	10	13
	Total	0	3	4	7	2	11	18	6	11	5	1	16	41
Social Conscience	Group 1	-	-	-	-	4	1	3	2	3	1	-	4	9
	Group 2	-	-	1	1	3	-	2	4	4	-	-	5	10
	Group 3	-	-	-	1	-	1	-	1	3	-	1	1	5
	Group 4	-	2	-	5	9	1	9	3	2	2	-	16	16
	Total	0	2	1	7	16	3	14	10	12	3	1	26	40
Cultural Sophistication	Group 1	-	-	1	2	3	3	1	2	2	-	-	6	5
	Group 2	-	-	-	1	5	2	2	-	4	-	-	6	6
	Group 3	-	-	-	-	1	-	2	2	1	1	-	1	6
	Group 4	-	1	2	7	5	3	3	8	3	1	-	15	15
	Total	0	1	3	10	14	8	8	12	10	2	0	28	32

Table B

Wilcoxon Sign Test Values Derived When Group One Pretest and Posttest Scores Were Compared

College Student Questionnaire Scales				
Fam. Ind.	Peer Ind.	Liberalism	Soc. Consc.	Cul. Soph.
21*	27	2.5**	31	47

* $p = .05$ ** $p < .01$

Note: Using the Wilcoxon Test none of the other study groups evidenced significant changes on any of the CSQ attitude scales.

Table C

Mann-Whitney U Values When Group One Pretest Scores Were Compared With the Pretest Scores of the Other Study Groups

Group One Compared To-	College Student Questionnaire Scales					Required for Significance at .05 level
	Fam. Ind.	Peer Ind.	Liberalism	Soc. Consc.	Cul. Soph.	
Group 2	67.5	41.5*	57.5	56.5	75.0	$U \leq 55$
Group 3	39.5	54.5	37.0	43.5	25.5	$U \leq 22$
Group 4	3.13*	0.63	1.13	2.56*	1.55	$Z \geq 1.96$

*$p < .05$